tudes in clinical practice. Data was collected on 1648 patients with T2DM receiving at least one oral anti-diabetic with/without insulin and 141 specialists and 59 internal medicine physicians in 9 Chinese cities, through physician interviews, patient record forms, and self-completed questionnaires. **RESULTS:** Among the 200 physicians in the study, the most frequently reported concerns with starting insulin were patient's acceptance and ability to comply in the long-term (91.9% of respondents), and the long time needed to train on injection techniques and dosing (74.0%). Forty-three percent of physicians believe patients fear injections, but a higher percentage of patients (55.3%) report not liking injections. Thirty-seven percent of physicians believe social stigma is a barrier; only about 17.1% of insulin-naive patients believe so. Among 474 insulin-naive patients, the most frequently reported concern was that starting insulin would mean their diabetes is at an advanced stage (67.5% of respondents). Physicians underestimate that concern, with only 30% reporting that as a barrier. Almost half of insulin-naive patients (45.1%) would consider insulin initiation as a personal failure to control their diabetes. Among 346 patients taking insulin, 60.1% reported feeling better and 55.7% felt a more positive outlook since starting insulin; 59.8% thought insulin made their diabetes easier to manage. **CONCLUSIONS:** Physicians in China may over or underestimate patient perceived barriers to, and satisfaction with, insulin initiation. Physician/patient education focused on perceived barriers to insulin initiation, and patient/physician communication may facilitate the initiation of insulin in patients with this progressive disease. Interventions to address system-level barriers, e.g. time for training, are warranted.

PDB34

IMPROVEMENTS IN QUALITY OF LIFE ASSOCIATED WITH BIPHASIC INSULIN ASPART 30 IN TYPE 2 DIABETES PATIENTS IN CHINA: RESULTS FROM THE A1CHIEVE OBSERVATIONAL STUDY

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OBJECTIVES: To examine the effects on the health-related quality of life (HRQoL) after starting insulin with, or switching to, biphasic insulin aspart 30 (BIAsp30) in Chinese subjects with type 2 diabetes (T2DM) in the A_1chieve study. **METHODS:** The A_1chieve study was a 24-week, prospective, non-interventional, observational study conducted in routine clinical practices in 28 countries. In China, there were 8,578 T2DM patients recruited from 131 hospitals into the BIAsp30 treatment group (starting insulin with or switching to BIAsp30 at baseline based on physicians' clinical judgments). HRQoL was assessed at baseline and 24 weeks by the validated EQ-5D questionnaire (five dimensions and visual analogue scale (VAS)). Descriptive statistics, paired t-test, and chi-square were conducted for the analyses. **RESULTS:** The mean age of patients (±SD) was 54.9±14.4 years. 57% were male. The reported HRQoL as measured by VAS score (on a scale of 0-100) increased by 6.2 from 75.8 to 82.0 for the overall cohort ($p<0.001$). For insulin naïve patients, starting insulin with BIAsp30 was associated with a 6.1 increase in VAS score from 75.9 to 82.0 ($p<0.001$). Similarly, for insulin experienced patients, switching to BIAsp30 was associated with a 6.7 increase in VAS score from 75.3 to 82.0 ($p<0.001$). For the overall cohort in the five dimensions of EQ-5D, the percentage of patients reported no problems in walking increased from 88.4% to 91.4% ($p<0.0001$) after 24 weeks. Similarly, the percentage of patients reported no pain or discomfort increased from 77.3% to 82.8% ($p<0.0001$), reported not anxious or depressed increased from 74.2% to 77.1% ($p<0.001$). The percentage of patients reported no problems in self-care and usual activity only slightly reduced (-0.2%, -0.5%, respectively) with no statistical significance. **CONCLUSIONS:** Starting insulin with, or switching to, BIAsp30 were associated with significant HRQoL improvement in Chinese T2DM subjects of the A_1chieve study.

PDB35

VALIDATION OF THE PROBLEM AREAS IN DIABETES QUESTIONNAIRE AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS IN SINGAPORE: A PILOT STUDY

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Psychological distress often occurs in patients with diabetes, resulting in poorer therapeutic outcomes. The Problem Areas in Diabetes (PAID) questionnaire covers frequently reported diabetes related emotional problems. Utilizing PAID to identify distressed diabetic patients would be beneficial. **OBJECTIVES:** PAID was originally developed for the American population. Cross-cultural differences in health perceptions are well documented; thus it is necessary to verify the validity and reliability of PAID in Singapore. Design: Cross-sectional study. PARTICIPANTS: Patients with Type 2 diabetes, 21-65 years old, English-speaking, without obvious cognitive impairment and visited the Diabetes Clinic at National University Hospital. **METHODS:** Validity of the scale was evaluated by factor analysis, known group (defined by socio-demographics and clinical variables), convergent/divergent and concurrent validity. Reliability (internal consistency) was evaluated by Cronbach's alpha. **RESULTS:** Exploratory factor analysis revealed three factors. All items loaded onto one factor (distress related problems). A few items loaded onto multiple factors. PAID scores were significantly higher in patients with HbA1c 7.5% ($p=0.02$) and living in HDB 5-room or smaller flats ($p=0.01$), supporting known group validity. Other hypothesized known group differences were not observed. PAID correlated significantly with Kessler10 (K10) and World Health Organization Quality of Life (WHOQOL-BREF), thus demonstrating convergent and concurrent validity. PAID correlated weakly with WHOQOL-BREF's physical domain, thus demonstrating divergent validity. Internal consistency was high (Cronbach's alpha=0.96). **CONCLUSIONS:** PAID is a valid and reliable scale to evaluate diabetes-related emotional distress in the Singaporean Type 2 diabetes population. Further evidence on known group validity needs to be accumulated in future studies.

PDB36

GLYCEMIC CONTROL AND QUALITY OF LIFE FOR PATIENTS WITH TYPE 2 DIABETES MELLITUS IN CHINA

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OBJECTIVES: To examine the association between glycemic control and quality of life (QoL) among patients with type 2 diabetes mellitus (T2DM) in China. **METHODS:** Data were obtained from a cross-sectional survey of T2DM patients in outpatient settings from October to December 2011 in Beijing and Tianjin. Eligible patients were ≥18 years, had a diagnosis of T2DM ≥1 year and received ≥1 year anti-diabetic treatment at the time of survey. EQ-5D index score and visual analog scale (VAS) score were calculated for all T2DM patients and compared between subgroups defined by fasting blood glucose control (FBG<8 mmol/L) and 2-hour post-prandial glucose control (2h-BG<10 mmol/L). Multivariate linear regression models were applied to assess the associations between glucose control and patient QoL, adjusting for age, gender, BMI, weight gain, education and life style (including smoking, drinking and exercise). **RESULTS:** A total of 500 patients with T2DM were included in the analysis with 54.6% female, mean age of 63.2 years and mean disease duration of 11.5 years. Among them, 64.6% reported FBG<8mmol/L and 45.6% reported 2h-BG<10mmol/L based on the last test in the past 2 weeks. Mean EQ-5D and VAS scores for all patients were 0.78 and 68.25, respectively. Compared with patients without FBG control, patients with FBG control had significantly higher EQ-5D (0.80 vs. 0.75, P=0.005) and VAS scores (69.40 vs. 66.16, P=0.017). Similarly, patients with 2h-BG control had significantly higher scores than those without 2h-BG control (0.82 vs. 0.75 for EQ-5D; 71.82 vs. 65.26 for VAS, both P<0.001). The regression analysis showed that 2h-BG control, but not FBG control, was significantly associated with higher EQ-5D (P=0.035) and VAS scores (P=0.000). Older age, less education, weight gain and less exercise were also significantly associated with lower QoL. **CONCLUSIONS:** Better glycemic control at 2-hour post-prandial is associated with improved QoL in patients with T2DM.

INFECTION - Clinical Outcomes Studies

PIN1

EFFICACY AND SAFETY OF TENOFOVIR AS COMPARED WITH ALTERNATIVE TREATMENT OPTIONS FOR NAIVE CHRONIC HEPATITIS B – A SYSTEMATIC REVIEW AND MIXED TREATMENT COMPARISON

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OBJECTIVES: To assess efficacy and safety of tenofovir (TDF) as compared with other nucleot(s)ide analogues (NAs) and peginterferon alpha 2a (PegIFNα2a) for naive chronic hepatitis B. **METHODS:** Comparison was based on randomized controlled trials (RCTs) identified by means of systematic review, carried out according to the Cochrane Collaboration guidelines. Studies met the inclusion criteria if they directly compared at least two of the following interventions: TDF, PegIFNα2a ETV, ADV, LAM or placebo. The most important medical databases (MEDLINE, CENTRAL, EMBASE) were searched until February 2012. Two reviewers independently selected trials, assessed their quality and extracted data. Mixed treatment comparison (MTC) was performed using WinBugs software. Subgroup analysis was performed according hepatitis B antigen e status. **RESULTS:** We identified 20 relevant studies. The results of MTC showed that in app. one year of follow up TDF significantly increased the odds of HBV DNA clearance when compared with PegIFNα2a (OR = 66.22 [5.98; 733.54]); ETV (OR = 8.45 [1.12; 63.98]); ADV (OR = 13.04 [3.62; 46.94]) and LAM (OR = 41.72 [5.27; 330.54]). TDF was superior than PegIFNα2a with respect to ALT normalization (OR = 3.07 [1.04; 9.09]) but did not differ significantly from other NAs. Percentage of patients with any adverse events was significantly lower in TDF group when compared with PegIFNα2a (OR = 0.19 [0.07; 0.48]), while no differences were found between TDF and placebo as well as other NAs with respect to the safety profile. The rates of ALT flares were similar in all treatments arms. In contrast to other NAs there were no resistance to TDF through five years. **CONCLUSIONS:** TDF demonstrated the highest efficacy with respect to the reduction of viral load in treatment naïve patients with chronic HBV and maintained a very good safety profile.

PIN2

ASSESSING THE DIAGNOSTIC PERFORMANCE OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1) TROPISM TESTING METHODS: A SYSTEMATIC REVIEW OF GENOTYPIC SEQUENCING OF THE THIRD HYPERVARIABLE (V3) LOOP AND ENHANCED-SENSITIVITY PHENOTYPIC ASSAY TECHNOLOGY

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OBJECTIVES: To evaluate the relative diagnostic performance of genotypic sequencing and enhanced-sensitivity phenotypic testing methods for: i) identifying the tropism of HIV-1 infected patients, and ii) predicting virological response to CCR5-antagonist therapy. **METHODS:** A systematic review of the literature (via EMBASE and Medline databases) initially identified 359 publications. Based on *a priori* defined eligibility criteria, five studies were included in the final analysis. **RESULTS:** Four of the five studies assessed the diagnostic performance of genotypic testing in identifying viral tropism, with the enhanced-sensitivity Trofile assay (ESTA) as the reference standard. Using the geno2pheno bioinformatic algorithm, genotypic testing maintained a high concordance with ESTA (range: 70.6%-85.3%).